



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/751,298	01/05/2004	Jong-phil Kim	46175	8793
1609 7590 03/05/2008 ROYLANCE, ABRAMS, BERDO & GOODMAN, L.L.P. 1300 19TH STREET, N.W. SUITE 600 WASHINGTON,, DC 20036			EXAMINER ADEGEYE, OLUWASEUN	
			ART UNIT 2621	PAPER NUMBER
			MAIL DATE 03/05/2008	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/751,298

Applicant(s)

KIM ET AL.

Examiner

OLUWASEUN A. ADEGEYE

Art Unit

2621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 01/05/2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 - 62 is/are pending in the application.
- 4a) Of the above claim(s) 1 - 4 and 19 - 62 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 5 - 18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01/05/2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 01/14/2008.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Response to Amendment***

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

### ***Response to Arguments***

2. Applicant's arguments filed 01/23/2008, with respect to claim 5 - 18 have been fully considered but they are not persuasive.

In re pages 22 - 26, applicants, argue with respect to claims 5 and 6 that there is nothing in either Rodriguez et al or Enoki et al that discloses the concept of having separate steps for first temporarily recording the image/sound signals and attribute information regarding the image/sound signals in a temporary recording area on the HDD, then recording the temporarily recorded image/sound signals and attribute information in non-recorded portions of a long-time period recording area of the HDD, rather than simply re-designating the temporary storage as long-term storage. The applicant also discloses that none of the references discloses the concept of a system and method of storage to first one area, and then storage to a second area of the HDD.

Rodriguez clearly discloses the concept of having separate steps for first temporarily recording the image/sound signals and attribute information regarding the image/sound signals in a temporary recording area on the HDD (see [085]. In the above paragraph, Rodriguez discloses TSB1376 and TSB2378 used for temporarily storing media content), then recording the temporarily recorded image/sound signals and attribute information in non-recorded portions of a long-time period recording area of the

Art Unit: 2621

HDD (see [086]). In the above paragraph, Rodriguez discloses two different ways of permanently recording temporary recordings with the first being permanently recording temporary recordings in non-buffer clusters (i.e. not in clusters assigned to TSBs). Therefore Rodriguez discloses the concept of a system and method of storage to first one area (buffer clusters), and then storage to a second area of the HDD (non-buffer clusters).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 5 – 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rodriguez (US 2002/0168178 A1) in view of Enoki et al (US 5,684,998).

As to **claim 5**, Rodriguez discloses a method for saving temporarily stored information on a hard disk drive (HDD) (see [85]. Rodriguez discloses buffers for temporarily storing data) of an image recording/reproducing apparatus into a plurality of certain sized clusters (see [86]), comprising:

receiving a recording request for recording image/sound signals (see [95]. Rodriguez discloses a record button (390). Rodriguez also discloses audio and video (see [54]) );

Art Unit: 2621

recording temporarily the image/sound signals and attribute information (FAT) (see [83] and [85]) regarding the image/sound signals in a temporary recording area (TSB1376 and TSB2378) on the HDD (see [85]);

recording the temporarily recorded image/sound signals and attribute information in non-recorded portions of a long-time period (permanent recording)( see [86]) recording area of the HDD if there are temporarily recorded image/sound signals and attribution information in the temporary recording area of the HDD (see [86] and [87]).

Rodriguez discloses permanent recordings after temporarily storing data (see [86] and [95]). However Rodriguez does not disclose determining whether a power-off command has been received by the main control unit, and if so, further determining whether there is temporarily recorded image/sound signals and attribute information in the temporary recording area on the HDD.

Enoki discloses determining whether a power-off command (see column 12, lines 43 – 54) has been received by the main control unit (106) (see column 6, lines 23 – 29), and if so, further determining whether there is temporarily recorded image/sound signals and attribute information in the temporary recording area on the HDD (see column 12, lines 43 – 67).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have added the step of determining whether a power-off command has been received by the main control unit taught by Enoki to the apparatus of Rodriguez to provide an apparatus for suspending and resuming the execution of an

Art Unit: 2621

application program during a power off/on cycle, which are applied to computer systems such as personal computers and workstations (see column 1, lines 12 – 17).

As to **claim 6**, Rodriguez in view of Enoki discloses the method according to claim 5. Rodriguez discloses further comprising:

recording the temporarily recorded image/sound signals and attribute information in a non-recorded long-time period recording area of the HDD (see [85], [86] and [[95]. Rodriguez discloses permanent recordings of temporarily saved data in the cited paragraphs. Rodriguez discloses attribute information (FAT) in paragraph 83).

As to **claim 7**, Rodriguez in view of Enoki discloses the method according to claim 6. Rodriguez discloses wherein the step of recording the temporarily recorded image/sound signals and attribute information comprises:

checking and processing location information about un-recorded clusters such that the image/sound signals are recorded in a plurality of un-recorded clusters of a data recording area of the HDD (see [86] and [87]);

recording the attribute information in the plurality of un-recorded clusters of a root directory area of the HDD (see [83]); and

recording the information about the respective clusters in a file allocation table (FAT) area of the HDD and on a long-time period basis (see [83] and [86] – [87]).

As to **claim 8**, Rodriguez in view of Enoki discloses the method according to claim 5. Rodriguez discloses wherein the step of receiving a recording request comprises:

generating the attribute information about the requested signals to be recorded (see [83] and [95]. Rodriguez discloses in paragraph 95 a record button (390) for initiating permanent recordings of information stored in the buffers. Paragraph 83 and 88 discloses attribute information);

and

processing the attribute information such that the attribute information and the image/sound signals are provided to the HDD for recording (see [83], [88] and [95]).

As to **claim 9**, Rodriguez in view of Enoki discloses the method according to claim 8. Rodriguez discloses wherein the steps of generating and processing the attribute information are performed by a main control unit (344) in the image recording/reproducing apparatus, and the image/sound signals are provided through a data management unit (see [88]) in the image recording/reproducing apparatus to the HDD (see [85] and [86]).

As to **claim 10**, Rodriguez in view of Enoki discloses the method according to claim 5. Rodriguez discloses wherein the step of recording temporarily the image/sound signals and attribute information in a temporary recording area on the HDD comprises:

reading from a file allocation table (FAT) portion of a long-time period recording area of the HDD information about clusters of the long-time period recording area (see [83], [86] - [88]);

determining from the information read from the FAT about clusters of the long-time period recording area location information about un-recorded clusters (see [83] and [86] - [88]); and

processing the information read such that the image/sound signals can be recorded in a plurality of un-recorded clusters of the HDD (see [83] and [86] – [88]).

As to **claim 11**, Rodriguez in view of Enoki disclose the method according to claim 10. Rodriguez discloses wherein the information about clusters of the long-time period recording area comprises location information (see [83]) of the clusters and information as to whether data is recorded in those clusters (see [83]. Rodriguez discloses a FAT that keeps track of free clusters).

As to **claim 12**, Rodriguez in view of Enoki discloses the method according to claim 10. Rodriguez discloses wherein information about the respective clusters is temporarily recorded in the temporary recording area on the HDD (Paragraph 85 and 96 discloses temporarily storing data in buffers in the HDD. Paragraph 83 discloses a FAT that contains information about respective clusters).

As to **claim 13**, Rodriguez in view of Enoki discloses the method according to claim 10. Rodriguez discloses wherein the steps of processing the attribute information, reading from a FAT information about clusters and processing the read information about clusters are performed by a data management unit (377) of the image recording/reproducing apparatus (see [88]).

As to **claim 14**, Rodriguez in view of Enoki discloses the method according to claim 5. Rodriguez discloses wherein the step of recording the temporarily recorded image/sound signals and attribute information in non-recorded long-time recording areas of the HDD comprises:



determining the location of un-recorded clusters with no data therein, based on the information read from the FAT area, such that the image/sound signals can be recorded in a plurality of un-recorded clusters on a long-time period basis (see [83] and [86] – [88]); and

dividing and recording the attribute information in the plurality of un-recorded clusters of a root directory area of the HDD for a long-time period basis (see [83] and [86] – [88]).

As to **claim 15**, Rodriguez in view of Enoki discloses the method according to claim 14. Rodriguez discloses further comprising:

updating the FAT area following the step of recording the temporarily recorded image/sound signals and attribute information regarding the image/sound signals in a non-recorded long time period recording area of the HDD (see [83] and [86]).

As to **claim 16**, Rodriguez in view of Enoki discloses the method according to claim 5. However Rodriguez does not disclose wherein the step of determining whether a power-off command has been received comprises:

notifying a data management unit that the power-off command has been received by the main control unit.

Enoki discloses wherein the step of determining whether a power-off command has been received comprises:

notifying a data management unit that the power-off command has been received by the main control unit (105) (see column 6, lines 12 – 16, column 7, lines 12 – 26 and column 12, lines 43 – 67).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have added the step of notifying a data management unit that the power-off command has been received by the main control unit taught by Enoki to the apparatus of Rodriguez to provide an apparatus for suspending and resuming the execution of an application program during a power off/on cycle, which are applied to computer systems such as personal computers and workstations (see column 1, lines 12 – 17).

As to **claim 17**, Rodriguez in view of Enoki discloses the method according to claim 5. However Rodriguez does not disclose further comprising: turning off the image recording/reproducing apparatus.

Enoki discloses further comprising: turning off the image recording/reproducing apparatus (see column 12, lines 64 – 67).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have added the step of turning off the recording/reproducing apparatus taught by Enoki to the apparatus of Rodriguez to provide an apparatus for suspending and resuming the execution of an application program during a power off/on cycle, which are applied to computer systems such as personal computers and workstations (see column 1, lines 12 – 17).

As to **claim 18**, Rodriguez in view of Enoki discloses the method according to claim 17. However Rodriguez does not disclose wherein the step of turning off the image recording/reproducing apparatus is performed by a main control unit of the image recording/reproducing apparatus.

Art Unit: 2621

Enoki discloses wherein the step of turning off the image recording/reproducing apparatus is performed by a main control unit (105) of the image recording/reproducing apparatus(see column 6, lines 12 – 16, column 7, lines 12 – 26 and column 12, lines 43 – 67).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have added the step of turning off the recording/reproducing apparatus by a main control unit as taught by Enoki to the apparatus of Rodriguez to provide an apparatus for suspending and resuming the execution of an application program during a power off/on cycle, which are applied to computer systems such as personal computers and workstations (see column 1, lines 12 – 17).

### ***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US 5,734,816 discloses HDD, clusters and attribute information.

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not

Art Unit: 2621

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

### ***Inquires***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Oluwaseun A. Adegeye whose telephone number is 571-270-1711. The examiner can normally be reached on Monday - Friday 7:30 - 5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha D. Banks-Harold can be reached on 571-272-7905. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

02/29/2008

O.A

*Marsha D. Banks-Harold*  
MARSHA D. BANKS-HAROLD  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600